

FILE 'REGISTRY' ENTERED AT 13:48:36 ON 19 APR 2002

L1 0 S FUSOBACTERIUM VARIUM?  
L2 0 S FUSOBACTERIUM (A) VARIUM?  
L3 0 S FUSOBACTERIUM (W) VARIUM

FILE 'CAPLUS' ENTERED AT 13:49:20 ON 19 APR 2002

E FUSOBACTERIUM VARIUM  
L4 1363 S E2 OR E4 OR E5 OR E6 OR E7 OR E8  
L5 99 S L4 AND VARIUM  
L6 0 S L5 AND (IMMUNOBLOT? OR WESTERN? OR AUTOANTIBOD? OR ANTIBOD? O  
L7 0 S L5 AND AUTOIMMUNE?  
L8 1 S L5 AND IMMUNE  
L9 11 S L5/TI

=> s 15 and immunoassay?

53600 IMMUNOASSAY?

L10 0 L5 AND IMMUNOASSAY?

=> s 15 and inject?

596802 INJECT?

L11 1 L5 AND INJECT?

1988:68553 CAPLUS

DN 108:68553

TI Comparative immunological studies on *Corynebacterium parvum* polysaccharide and *Fusobacterium varium* lipopolysaccharide

AU Marx, A.; Salageanu, Aurora; Olinescu, A.; Gancevici, G.

CS Cantacuzino Inst., Bucharest, Rom.

SO Arch. Roum. Pathol. Exp. Microbiol. (1987), 46(1), 57-65

CODEN: APEMAR; ISSN: 0004-0037

DT Journal

LA English

AB Comparative immunol. studies were carried out on *C. parvum*'s polysaccharide (CPP) and the lipopolysaccharide (LPS) of *F. varium*, in order to differentiate structurally the 2 antigens of anaerobic bacteria origin. CPP was not toxic in galactosamine-sensitized mice, and therefore it lacks a lipid A moiety. LPS and CPP are mitogenic on mice spleen cells and activate complement, both activities being however distinctly lower in the CPP. The presence of an addnl. structure in the CPP mol. is suggested which, in contrast to the antigenic determinant, is not affected by oxidn. with periodate. In its reaction with Concanavalin A, in contrast to LPS, CPP shown a pptn. curve presenting a sharp peak, which may be inhibited by mannose, glucose, and glucosamine. In ConA soln. as well as in lysozyme soln., *C. parvum* (CPP+) bacterial suspension does agglutinate, whereas *F. varium* (LPS+) does not. Thes same *C. parvum* strain was more intensely phagocytized than the *F. varium* strain.

TI Comparative immunological studies on *Corynebacterium parvum* polysaccharide and *Fusobacterium varium* lipopolysaccharide

AB Comparative immunol. studies were carried out on *C. parvum*'s polysaccharide (CPP) and the lipopolysaccharide (LPS) of *F. varium*, in order to differentiate structurally the 2 antigens of anaerobic bacteria origin. CPP was not toxic in galactosamine-sensitized mice, and therefore it lacks a lipid A moiety. LPS and CPP are mitogenic on mice spleen cells and activate complement, both activities being however distinctly lower in the CPP. The presence of an addnl. structure in the CPP mol. is suggested which, in contrast to the antigenic determinant, is not affected by oxidn. with periodate. In its reaction with Concanavalin A, in contrast to LPS, CPP shown a pptn. curve presenting a sharp peak, which may be inhibited by mannose, glucose, and glucosamine. In ConA soln. as well as in lysozyme soln., *C. parvum* (CPP+) bacterial suspension does agglutinate, whereas *F. varium* (LPS+) does not. Thes same *C. parvum* strain was more intensely phagocytized than the *F. varium* strain.

ST *Corynebacterium* polysaccharide *Fusobacterium* lipopolysaccharide immunol

IT Mitogens

(lipopolysaccharide of *Fusobacterium varium* and polysaccharide of *Corynebacterium parvum* as)

IT *Fusobacterium varium*

(lipopolysaccharide of, immune reactions of)

IT Lipopolysaccharides

RL: RCT (Reactant)

(of *Fusobacterium varium*, toxicity and immune reactions of)

IT Toxicity

(of *Corynebacterium parvum* polysaccharide vs. *Fusobacterium varium* lipopolysaccharide, lipid A in relation to)

IT Polysaccharides, biological studies

RL: RCT (Reactant)

AN 2001:593619 CAPLUS

DN 135:300313

TI Purification and characterization of .beta.-methylaspartase from  
**Fusobacterium varium**AU Bearne, Stephen L.; White, Robert L.; MacDonnell, Jennifer E.; Bahrami,  
Shervin; Gronlund, JesperCS Department of Biochemistry and Molecular Biology, Dalhousie University,  
Halifax, NS, B3H 4H7, Can.SO Molecular and Cellular Biochemistry (2001), 221(1&2), 117-126  
CODEN: MCBIB8; ISSN: 0300-8177

PB Kluwer Academic Publishers

DT Journal

LA English

AB .beta.-Methylaspartase (EC 4.3.1.2) was purified 20-fold in 35% yield from **Fusobacterium varium**, an obligate anaerobe. The purifn. steps included heat treatment, fractional pptn. with ammonium sulfate and ethanol, gel filtration, and ion exchange chromatog. on DEAE-Sepharose. The enzyme is dimeric, consisting of two identical 46 kDa subunits, and requires Mg<sup>2+</sup> (K<sub>m</sub> = 0.27 +/- 0.01 mM) and K<sup>+</sup> (K<sub>m</sub> = 3.3 +/- 0.8 mM) for max. activity. .beta.-Methylaspartase-catalyzed addn. of ammonia to mesaconate yielded two diastereomeric amino acids, identified by HPLC as (2S,3S)-3-methylaspartate (major product) and (2S,3R)-3-methylaspartate (minor product). Optimal activity for the deamination of (2S,3S)-3-methylaspartate (K<sub>m</sub> = 0.51 +/- 0.04 mM) was obsd. at pH 9.7. The N-terminal protein sequence (30 residues) of the F. varium enzyme is 83% identical to the corresponding sequence of the clostridial enzyme.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Purification and characterization of .beta.-methylaspartase from  
**Fusobacterium varium**

AB .beta.-Methylaspartase (EC 4.3.1.2) was purified 20-fold in 35% yield from **Fusobacterium varium**, an obligate anaerobe. The purifn. steps included heat treatment, fractional pptn. with ammonium sulfate and ethanol, gel filtration, and ion exchange chromatog. on DEAE-Sepharose. The enzyme is dimeric, consisting of two identical 46 kDa subunits, and requires Mg<sup>2+</sup> (K<sub>m</sub> = 0.27 +/- 0.01 mM) and K<sup>+</sup> (K<sub>m</sub> = 3.3 +/- 0.8 mM) for max. activity. .beta.-Methylaspartase-catalyzed addn. of ammonia to mesaconate yielded two diastereomeric amino acids, identified by HPLC as (2S,3S)-3-methylaspartate (major product) and (2S,3R)-3-methylaspartate (minor product). Optimal activity for the deamination of (2S,3S)-3-methylaspartate (K<sub>m</sub> = 0.51 +/- 0.04 mM) was obsd. at pH 9.7. The N-terminal protein sequence (30 residues) of the F. varium enzyme is 83% identical to the corresponding sequence of the clostridial enzyme.

ST methylaspartase **Fusobacterium** purifn characterization

IT Protein sequences

(homol., N-terminal; N-terminal sequence of .beta.-methylaspartase from **Fusobacterium varium** exhibits significant homol. with .beta.-methyltransferases from other species)

IT Michaelis constant

(kinetic parameters for .beta.-methylaspartase from **Fusobacterium varium**)

IT Quaternary structure

(protein; .beta.-methylaspartase from **Fusobacterium varium** is homodimer and requires Mg<sup>2+</sup> and K<sup>+</sup> for max. activity)

IT **Fusobacterium varium**

(purifn. and characterization of .beta.- methylaspartase from **Fusobacterium varium**)

IT 9033-26-5P, .beta.-Methylaspartase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)

(purifn. and characterization of .beta.- methylaspartase from **Fusobacterium varium**)

IT 7439-95-4, Magnesium, biological studies 7440-09-7, Potassium, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (.beta.-methyldaspartase from **Fusobacterium varium** is homodimer and requires Mg2+ and K+ for max. activity)

L9 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 2001:123060 CAPLUS

DN 134:173867

TI Primers and probes for PCR identification of Eubacterium and **Fusobacterium varium**

IN Benno, Yoshimi; Kageyama, Akiko

PA Yakult Biosciens Kenkyu Zaidan, Japan; Institute of Physical and Chemical Research

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001046063	A2	20010220	JP 1999-226176	19990810
AB	16S rRNA gene-targeting oligonucleotides that can be used as primers or probes for speedy identification of Eubacterium species and <b>Fusobacterium varium</b> by PCR are provided.				
TI	Primers and probes for PCR identification of Eubacterium and <b>Fusobacterium varium</b>				
AB	16S rRNA gene-targeting oligonucleotides that can be used as primers or probes for speedy identification of Eubacterium species and <b>Fusobacterium varium</b> by PCR are provided.				
ST	Eubacterium <b>Fusobacterium varium</b> identification PCR primer probe				
IT	rRNA RL: BSU (Biological study, unclassified); BIOL (Biological study) (16 S; primers and probes for PCR identification of Eubacterium and <b>Fusobacterium varium</b> )				
IT	Gene, microbial RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process) (16S rRNA; primers and probes for PCR identification of Eubacterium and <b>Fusobacterium varium</b> )				
IT	DNA sequences Eggerthella lenta Eubacterium Eubacterium bifforme Eubacterium eligens Eubacterium limosum Eubacterium rectale Eubacterium tortuosum <b>Fusobacterium varium</b> PCR (polymerase chain reaction) (primers and probes for PCR identification of Eubacterium and <b>Fusobacterium varium</b> )				
IT	Primers (nucleic acid) Probes (nucleic acid) RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (primers and probes for PCR identification of Eubacterium and <b>Fusobacterium varium</b> )				
IT	326502-85-6	326502-86-7	326502-87-8	326502-88-9	326502-89-0
	326502-90-3	326502-91-4	326502-92-5	326502-93-6	326502-94-7

326502-95-8 326502-96-9 326502-97-0 326502-98-1 326502-99-2  
326503-00-8 326503-01-9 326503-02-0 326503-03-1  
RL: ARG (Analytical reagent use); BPR (Biological process); BSU  
(Biological study, unclassified); BUU (Biological use, unclassified); PRP  
(Properties); ANST (Analytical study); BIOL (Biological study); PROC  
(Process); USES (Uses)  
(PCR primer/probe; primers and probes for PCR identification of  
Eubacterium and **Fusobacterium** varium)

L9 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS  
AN 2000:296476 CAPLUS  
DN 133:73429

TI The human gut bacteria *Bacteroides thetaiotaomicron* and  
**Fusobacterium varium** produce putrescine and spermidine  
in cecum of pectin-fed gnotobiotic rats

AU Noack, Jutta; Dongowski, Gerhard; Hartmann, Ludger; Blaut, Michael  
CS Department of Gastrointestinal Microbiology, German Institute of Human  
Nutrition Potsdam-Rehbrücke, Bergholz-Rehbrücke, 14558, Germany  
SO Journal of Nutrition (2000), 130(5), 1225-1231  
CODEN: JONUAI; ISSN: 0022-3166

PB American Society for Nutritional Sciences  
DT Journal  
LA English

AB Pectin is a sol. nondigestible polysaccharide that stimulates cecal  
polyamine formation in rats. *Bacteroides* and **fusobacteria**, two  
numerically dominant bacterial population groups in the large intestine,  
can synthesize high amts. of spermidine and putrescine in vitro. The  
effects of pectin on the polyamine prodn. by defined bacterial species in  
vivo were studied in 18 germ-free male Wistar rats. The treatments  
included monoassocn. with *Bacteroides thetaiotaomicron* + fiber-free diet,  
combined assocn. with *B. thetaiotaomicron* + **Fusobacterium** varium  
+ fiber-free diet, and combined assocn. with *B. thetaiotaomicron* + *F.*  
varium + fiber-free diet + 10% pectin. The cecal content of the  
monoassocd. rats fed fiber-free diet contained large amts. (1.51.+-.0.21  
.mu.mol/dry cecum content) of spermidine which was the major polyamine.  
The cecum of diassocd. rats fed the fiber-free diet contained even higher  
concns. of spermidine (25.3.+-.0.21 .mu.mol/dry cecum content) and also  
putrescine, which was now the dominant polyamine (0.32.+-.0.28 vs.  
3.01.+-.0.28 .mu.mol/dry cecum content in monoassocn. vs. diassocn.).  
Pectin consumption by diassocd. rats led to addnl. increases in the cecal  
concns. of all polyamines; putrescine, spermidine and spermine levels were  
40, 37, and 100%, resp., higher in the diassocd. rats consuming pectin  
than in rats fed the pectin-free diet. Since the microbial counts in the  
cecum did not differ in the diassocd. groups, the elevated concns. of  
polyamines obsd. in the pectin group must have been due to stimulated  
bacterial polyamine synthesis. The decline of individual polyamines from  
cecum to feces detected at the end of the study in all treatment groups  
and the high microbial counts in the cecum and in feces suggest that  
bacterial polyamines are absorbed in the cecum and colon. Pectin may  
stimulate intestinal microbes to synthesize large amts. of polyamines  
which may be utilized by the host.

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI The human gut bacteria *Bacteroides thetaiotaomicron* and  
**Fusobacterium varium** produce putrescine and spermidine  
in cecum of pectin-fed gnotobiotic rats

AB Pectin is a sol. nondigestible polysaccharide that stimulates cecal  
polyamine formation in rats. *Bacteroides* and **fusobacteria**, two  
numerically dominant bacterial population groups in the large intestine,  
can synthesize high amts. of spermidine and putrescine in vitro. The  
effects of pectin on the polyamine prodn. by defined bacterial species in  
vivo were studied in 18 germ-free male Wistar rats. The treatments  
included monoassocn. with *Bacteroides thetaiotaomicron* + fiber-free diet,  
combined assocn. with *B. thetaiotaomicron* + **Fusobacterium** varium

+ fiber-free diet, and combined assocn. with *B. thetaiotaomicron* + *F. varium* + fiber-free diet + 10% pectin. The cecal content of the monoassocd. rats fed fiber-free diet contained large amts. (1.51. $\pm$ .0.21  $\mu$ .mol/dry cecum content) of spermidine which was the major polyamine. The cecum of diassocd. rats fed the fiber-free diet contained even higher concns. of spermidine (25.3. $\pm$ .0.21  $\mu$ .mol/dry cecum content) and also putrescine, which was now the dominant polyamine (0.32. $\pm$ .0.28 vs. 3.01. $\pm$ .0.28  $\mu$ .mol/dry cecum content in monoassocn. vs. diassocn.). Pectin consumption by diassocd. rats led to addnl. increases in the cecal concns. of all polyamines; putrescine, spermidine and spermine levels were 40, 37, and 100%, resp., higher in the diassocd. rats consuming pectin than in rats fed the pectin-free diet. Since the microbial counts in the cecum did not differ in the diassocd. groups, the elevated concns. of polyamines obsd. in the pectin group must have been due to stimulated bacterial polyamine synthesis. The decline of individual polyamines from cecum to feces detected at the end of the study in all treatment groups and the high microbial counts in the cecum and in feces suggest that bacterial polyamines are absorbed in the cecum and colon. Pectin may stimulate intestinal microbes to synthesize large amts. of polyamines which may be utilized by the host.

- IT Intestinal content
  - (cecal; dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)
- IT *Bacteroides thetaiotaomicron*
  - Fusobacterium varium*
  - Intestinal bacteria
  - Nutrition, animal
    - (dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)
- IT Amines, biological studies
  - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
  - (polyamines, nonpolymeric; dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)
- IT Fatty acids, biological studies
  - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
  - (short-chain; dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)
- IT 64-19-7, Acetic acid, biological studies 71-44-3, Spermine 79-09-4, Propionic acid, biological studies 107-92-6, Butyric acid, biological studies 110-60-1, Putrescine 124-20-9, Spermidine
  - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
  - (dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)
- IT 9000-69-5, Pectin
  - RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
  - (dietary pectin effects on *Bacteroides thetaiotaomicron* and *Fusobacterium varium* prodn. of putrescine, spermine and spermidine in cecum of gnotobiotic rats)

L9 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 2000:176176 CAPLUS

DN 132:331953

TI Characteristics of *Fusobacterium ulcerans*, a new and unusual species compared with *Fusobacterium varium* and *Fusobacterium mortiferum*

AU Claros, M. C.; Papke, Y.; Kleinkauf, N.; Adler, D.; Citron, D. M.;

(SDS; **Fusobacterium** ulcerans comparison with  
**Fusobacterium** varium and **Fusobacterium** mortiferum)

IT Carbohydrates, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (metab.; **Fusobacterium** ulcerans comparison with  
**Fusobacterium** varium and **Fusobacterium** mortiferum)

L9 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1999:677645 CAPLUS  
 DN 131:283813  
 TI Utilization of D-amino acids by **Fusobacterium** nucleatum and  
**Fusobacterium** varium

AU Ramezani, M.; MacIntosh, S. E.; White, Robert L.  
 CS Dep. Chemistry, Dalhousie Univ., Halifax, NS, B3H 4J3, Can.  
 SO Amino Acids (1999), 17(2), 185-193  
 CODEN: AACIE6; ISSN: 0939-4451  
 PB Springer-Verlag Wien  
 DT Journal  
 LA English

AB The utilization of D and L-amino acids with acidic, basic or polar  
 side-chains was demonstrated by HPLC. Two species of the anaerobe  
**Fusobacterium** utilized D-lysine and the L isomers of glutamate,  
 glutamine, histidine, lysine, and serine. Only F. varium used L-arginine,  
 D-glutamate, and D-serine as substrates, whereas F. nucleatum specifically  
 utilized D-histidine and D-glutamine. D-Glutamate accumulated in F.  
 nucleatum cultures supplemented with D-glutamine, and ornithine was  
 detected when either DL- or L-arginine was included in F. varium cultures.  
 Based on literature precedents, D-glutamate and D-histidine are isomerized  
 to their L isomers prior to degrdn., but sep. catabolic pathways are  
 possible for each enantiomer of lysine and serine.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Utilization of D-amino acids by **Fusobacterium** nucleatum and  
**Fusobacterium** varium

AB The utilization of D and L-amino acids with acidic, basic or polar  
 side-chains was demonstrated by HPLC. Two species of the anaerobe  
**Fusobacterium** utilized D-lysine and the L isomers of glutamate,  
 glutamine, histidine, lysine, and serine. Only F. varium used L-arginine,  
 D-glutamate, and D-serine as substrates, whereas F. nucleatum specifically  
 utilized D-histidine and D-glutamine. D-Glutamate accumulated in F.  
 nucleatum cultures supplemented with D-glutamine, and ornithine was  
 detected when either DL- or L-arginine was included in F. varium cultures.  
 Based on literature precedents, D-glutamate and D-histidine are isomerized  
 to their L isomers prior to degrdn., but sep. catabolic pathways are  
 possible for each enantiomer of lysine and serine.

ST D amino acid utilization **Fusobacterium**

IT **Fusobacterium** nucleatum  
**Fusobacterium** varium  
 (utilization of D-amino acids by **Fusobacterium** nucleatum and  
**Fusobacterium** varium)

IT Amino acids, biological studies  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (D-; utilization of D-amino acids by **Fusobacterium** nucleatum  
 and **Fusobacterium** varium)

IT 56-45-1, L-Serine, biological studies 56-85-9, L-Glutamine, biological  
 studies 56-86-0, L-Glutamic acid, biological studies 56-87-1,  
 L-Lysine, biological studies 71-00-1, L-Histidine, biological studies  
 312-84-5, D-Serine 351-50-8, D-Histidine 923-27-3, D-Lysine  
 5959-95-5, D-Glutamine 6893-26-1, D-Glutamic acid  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (utilization of D-amino acids by **Fusobacterium** nucleatum and  
**Fusobacterium** varium)

L9 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1997:662984 CAPLUS  
 DN 127:275168  
 TI Catabolism of amino acids by **fusobacterium** species (**fusobacterium** nucleatum, **fusobacterium** varium)  
 AU Ramezani, Mohammad  
 CS Dalhousie Univ., Halifax, NS, Can.  
 SO (1996) 179 pp. Avail.: UMI, Order No. DANN15901  
 From: Diss. Abstr. Int., B 1997, 58(4), 1890  
 DT Dissertation  
 LA English  
 AB Unavailable  
 TI Catabolism of amino acids by **fusobacterium** species (**fusobacterium** nucleatum, **fusobacterium** varium)  
 ST amino acid catabolism **fusobacterium**  
 IT Catabolism  
     **Fusobacterium** nucleatum  
     **Fusobacterium** varium  
     (catabolism of amino acids by **fusobacterium** species)  
 IT Amino acids, biological studies  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
     (catabolism of amino acids by **fusobacterium** species)

L9 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1991:3291 CAPLUS  
 DN 114:3291  
 TI In vitro susceptibilities of *Bacteroides gracilis*, **Fusobacterium** mortiferum and *F. varium* to 17 antimicrobial agents  
 AU Courcol, Rene J.; Lee, Kyung Won; Downes, Julie; Wexler, Hannah M.; Baron, Ellen J.; Finegold, Sydney M.  
 CS Wadsworth V.A. Med. Cent., Los Angeles, CA, USA  
 SO J. Antimicrob. Chemother. (1990), 26(1), 157-8  
 CODEN: JACHDX; ISSN: 0305-7453  
 DT Journal  
 LA English  
 AB A total of 17 antimicrobial agents were tested against 26 clin. isolated of the title anaerobes: *B. gracilis* 18 strains, *F. mortiferum* 3 strains, and *F. varium* 5 strains. Nearly half of the *B. gracilis* strains were susceptible to penicillin, piperacilin, and clindamycin. The MIC90s of the B-lactams for this species are high, as are those of co-trimoxazole, vancomycin, josamycin, and nalidixic acid. The best activity was shown by chloramphenicol, gentamicin (uniquely) and metronidazole. Josamycin, vancomycin, gentamicin, rifampicin, nalidixic acid and ciprofloxacin were poor in activity against *F. mortiferum* and *F. varium*. Most .beta.-lactams were active against these 2 species. The other active drugs chloramphenicol and metronidazole.

TI In vitro susceptibilities of *Bacteroides gracilis*, **Fusobacterium** mortiferum and *F. varium* to 17 antimicrobial agents  
 ST antimicrobial sensitivity *Bacteroides* **Fusobacterium**; antibiotic sensitivity *Bacteroides* **Fusobacterium**  
 IT *Bacteroides gracilis*  
     **Fusobacterium** mortiferum  
     **Fusobacterium** varium  
     (antimicrobial susceptibility of)  
 IT Antibiotics  
     (*Bacteroides gracilis* and **Fusobacterium** susceptibility to)  
 IT 56-75-7, Chloramphenicol 61-33-6, biological studies 389-08-2, Nalidixic acid 443-48-1, Metronidazole 1403-66-3, Gentamicin 1404-90-6, Vancomycin 8064-90-2, Cotrimoxazole 13292-46-1, Rifampicin 16846-24-5, Josamycin 18323-44-9, Clindamycin 35607-66-0, Cefoxitin 61477-96-1, Piperacillin 64221-86-9, Imipenem 68401-81-0, Ceftizoxime 69712-56-7, Cefotetan 72558-82-8 85721-33-1, Ciprofloxacin  
 RL: BIOL (Biological study)  
     (*Bacteroides gracilis* and **Fusobacterium** susceptibility to)



L9 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1988:68553 CAPLUS  
 DN 108:68553  
 TI Comparative immunological studies on *Corynebacterium parvum* polysaccharide and ***Fusobacterium varium*** lipopolysaccharide  
 AU Marx, A.; Salageanu, Aurora; Olinescu, A.; Gancevici, G.  
 CS Cantacuzino Inst., Bucharest, Rom.  
 SO Arch. Roum. Pathol. Exp. Microbiol. (1987), 46(1), 57-65  
 CODEN: APEMAR; ISSN: 0004-0037  
 DT Journal  
 LA English  
 AB Comparative immunol. studies were carried out on *C. parvum*'s polysaccharide (CPP) and the lipopolysaccharide (LPS) of *F. varium*, in order to differentiate structurally the 2 antigens of anaerobic bacteria origin. CPP was not toxic in galactosamine-sensitized mice, and therefore it lacks a lipid A moiety. LPS and CPP are mitogenic on mice spleen cells and activate complement, both activities being however distinctly lower in the CPP. The presence of an addnl. structure in the CPP mol. is suggested which, in contrast to the antigenic determinant, is not affected by oxidn. with periodate. In its reaction with Concanavalin A, in contrast to LPS, CPP shown a pptn. curve presenting a sharp peak, which may be inhibited by mannose, glucose, and glucosamine. In ConA soln. as well as in lysozyme soln., *C. parvum* (CPP+) bacterial suspension does agglutinate, whereas *F. varium* (LPS+) does not. Thes same *C. parvum* strain was more intensely phagocytized than the *F. varium* strain.  
 TI Comparative immunological studies on *Corynebacterium parvum* polysaccharide and ***Fusobacterium varium*** lipopolysaccharide  
 ST *Corynebacterium* polysaccharide ***Fusobacterium*** lipopolysaccharide immunol  
 IT Mitogens  
     (lipopolysaccharide of ***Fusobacterium*** *varium* and polysaccharide of *Corynebacterium parvum* as)  
 IT ***Fusobacterium*** *varium*  
     (lipopolysaccharide of, immune reactions of)  
 IT Lipopolysaccharides  
 RL: RCT (Reactant)  
     (of ***Fusobacterium*** *varium*, toxicity and immune reactions of)  
 IT Toxicity  
     (of *Corynebacterium parvum* polysaccharide vs. ***Fusobacterium*** *varium* lipopolysaccharide, lipid A in relation to)

L9 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1987:172748 CAPLUS  
 DN 106:172748  
 TI Intergeneric protoplast fusion between ***Fusobacterium varium*** and *Enterococcus faecium* for enhancing dehydrodivanillin degradation  
 AU Chen, Wei; Ohmiya, Kunio; Shimizu, Shoichi  
 CS Sch. Agric., Nagoya Univ., Nagoya, 464, Japan  
 SO Appl. Environ. Microbiol. (1987), 53(3), 542-8  
 CODEN: AEMIDF; ISSN: 0099-2240  
 DT Journal  
 LA English  
 AB Intergeneric protoplast fusion between *F. varium* and *E. faecium* was performed under strictly anaerobic conditions to improve dehydrodivanillin (I) degrdn. The fusion frequency obtained obtained from the selective medium was 0.9-1.3 .times. 10<sup>-5</sup>. The 7 fusants isolated were all gram-neg. anaerobes with rod shapes like that of *F. varium* and with main phenotypical properties of cocci like those of *E. faecium* such as esculin and starch hydrolysis, milk clotting, and lactate prodn. Five fusants showed enhanced I degrdn. activities that were 2-4-fold higher than those of parental strains. Genetic relatedness between a fusant (FE7) and the parents was estd. by DNA-DNA Southern blot hybridization with 32P-labeled chromosomal DNA fragments of *F. varium* and *E. faecium* as probes. FE7

showed very high cross-hybridization with both probes, indicating a high DNA homol. between the fusant and both parental strains. Almost all the fusants obtained have been stable for .apprx.2 yr. These results suggest that stable intergeneric gene transfer takes place by protoplast fusion.

- TI Intergeneric protoplast fusion between **Fusobacterium varium** and *Enterococcus faecium* for enhancing dehydrodivanillin degradation
- ST protoplast fusion *Enterobacter* **Fusobacterium** dehydrodivanillin degrdn
- IT Fusion, biological  
(of *Enterococcus faecium* and **Fusobacterium varium**, for dehydrodivanillin degrdn.)
- IT *Streptococcus faecium*  
(protoplast fusion of **Fusobacterium varium** and, for dehydrodivanillin degrdn.)
- IT **Fusobacterium varium**  
(protoplast fusion of *Enterococcus faecium* and, for dehydrodivanillin degrdn.)
- IT 2092-49-1, Dehydrodivanillin  
RL: PRP (Properties)  
(degrdn. of, by protoplast fusants of *Enterococcus faecium* and **Fusobacterium varium**)
- IT 98-89-5, Cyclohexanecarboxylic acid 108-93-0, Cyclohexanol, biological studies 121-34-6, Vanillic acid 2134-90-9, Dehydrodivanillic acid 2134-91-0, 5-Carboxyvanillic acid 81115-96-0  
RL: FORM (Formation, nonpreparative)  
(formation of, from dehydrodivanillin by *Enterococcus faecium*-**Fusobacterium varium** fusants)
- L9 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS
- AN 1986:622460 CAPLUS
- DN 105:222460
- TI Protoplast formation and regeneration of dehydrodivanillin-degrading strains of **Fusobacterium varium** and *Enterococcus faecium*
- AU Chen, Wei; Omiya, Kunio; Shimizu, Shoichi
- CS Sch. Agric., Nagoya Univ., Nagoya, 464, Japan
- SO Appl. Environ. Microbiol. (1986), 52(4), 612-16  
CODEN: AEMIDF; ISSN: 0099-2240
- DT Journal
- LA English
- AB Two strains of rumen anaerobes isolated from dehydrodivanillin-degrading cultures were identified as *F. varium* and *E. faecium*. These organisms degraded dehydrodivanillin synergistically to 5-carboxymethylvanillin and vanillic acid. Specific conditions for protoplast formation and cell wall regeneration for both bacteria were detd., under strictly anaerobic conditions, to be as follows. The cell wall of each bacterium in yeast ext. medium was loosened by adding penicillin G during early log-phase growth. The cell wall of *F. varium* was lysed by lysozyme (1 mg/mL) in glycerol (0.2M)-phosphate buffer (0.05M; pH 7.0). The addn. of NaCl (0.08M) with lysozyme was necessary for lysis of *E. faecium* in this soln. Almost all cells were converted to protoplasts after 2 h of incubation at 37.degree.. Regeneration of both protoplasts was 20-30% on an agar-contg. yeast ext. medium.
- TI Protoplast formation and regeneration of dehydrodivanillin-degrading strains of **Fusobacterium varium** and *Enterococcus faecium*
- ST **Fusobacterium** *Enterococcus* protoplast formation; cell wall regeneration rumen microorganism; dehydrodivanillin degrdn  
**Fusobacterium** *Enterococcus*
- IT **Fusobacterium varium**  
*Streptococcus faecium*  
(cell wall regeneration and protoplast formation by, dehydrodivanillin degrdn. in relation to)

IT Protoplast and Spheroplast  
(formation of, by Enterococcus faecium and **Fusobacterium**  
varium)

IT Cell wall  
(regeneration of, by Enterococcus faecium and **Fusobacterium**  
varium, dehydrodivanillin degrdn. in relation to)

IT 121-33-5 121-34-6 498-00-0 2134-90-9 3507-08-2 81115-96-0  
95336-88-2  
RL: BIOL (Biological study)  
(as intermediate in dehydrodivanillin degrdn. by Enterococcus faecium  
and **Fusobacterium** varium)

IT 2092-49-1  
RL: PRP (Properties)  
(degrdn. of, by Enterococcus faecium and **Fusobacterium**  
varium)

L9 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS  
AN 1984:205435 CAPLUS  
DN 100:205435  
TI Purification and characterization of C-S lyase from **Fusobacterium**  
varium. A carbon-sulfur enzyme of cysteine conjugates and some  
sulfur-containing amino acids  
AU Tomisawa, Hiroki; Suzuki, Shuji; Ichihara, Shigeyasu; Fukazawa, Hideo;  
Tateishi, Mitsuru  
CS Dep. Biochem., Nippon Roche Res. Cent., Kamakura, Japan  
SO J. Biol. Chem. (1984), 259(4), 2588-93  
CODEN: JBCHA3; ISSN: 0021-9258  
DT Journal  
LA English  
AB An enzyme responsible for the C-S bond cleavage of various S-aryl,  
S-aralkyl, and S-alkyl cysteines was purified .apprx.270-fold from F.  
varium. Incubation of a cysteine conjugate of p-bromobenzene with the  
enzyme yielded equimolar amts. of p-bromobenzenethiol, pyruvic acid, and  
NH3, indicating that the C-S bond cleavage proceeds via an  
.alpha.,.beta.-elimination reaction. The enzyme activity was inhibited  
either by NH2OH or KCN and stabilized by pyridoxal phosphate, which  
probably acted as cofactor. The broad substrate spectrum of this enzyme  
suggested an important role of the intestinal microflora in the in vivo  
formation of methylthio-contg. metabolites of various xenobiotics.

TI Purification and characterization of C-S lyase from **Fusobacterium**  
varium. A carbon-sulfur enzyme of cysteine conjugates and some  
sulfur-containing amino acids  
ST cysteine conjugate CS lyase **Fusobacterium**  
IT **Fusobacterium** varium  
(cysteine conjugate C-S lyase of)

IT 52-90-4, biological studies 56-89-3, biological studies 498-59-9  
638-23-3 1115-93-1 1187-84-4 2481-10-9 2629-59-6 3054-01-1  
3183-08-2 4134-56-9 5443-40-3 6341-94-2 34317-61-8 68724-10-7  
90120-85-7  
RL: BIOL (Biological study)  
(cysteine conjugate C-S lyase of **Fusobacterium** specificity  
for)

IT 104-95-0 7133-37-1 19552-10-4  
RL: FORM (Formation, nonpreparative)  
(formation of, by cysteine conjugate C-S lyase of **Fusobacterium**  
, mass spectrum in relation to)

IT 90248-74-1P  
RL: PREP (Preparation)  
(of **Fusobacterium** varium, purifn. and properties of)

=> d his

(FILE 'HOME' ENTERED AT 13:48:28 ON 19 APR 2002)

Hunt-Gerardo, S.; Montag, Th.; Goldstein, E. J. C.; Rodloff, A. C.  
 CS Institute of Medical Microbiology and Infectious Epidemiology, University  
 Leipzig, Germany  
 SO Anaerobe (1999), 5(3/4), 137-140  
 CODEN: ANAEF8; ISSN: 1075-9964  
 PB Academic Press  
 DT Journal  
 LA English  
 AB **Fusobacterium** ulcerans is a newly described obligately anaerobic  
 Gram-neg., non-spore-forming rod that has been isolated from tropical  
 ulcers. Two morphotypes were described: one resembling  
**Fusobacterium** varium and the other **Fusobacterium**  
 mortiferum. Because of the weak or neg. fermn. reactions of most  
**fusobacteria**, the std. carbohydrate tests used for identification  
 of anaerobe organisms are of little use for identification, and other  
 rapid and simple methods are needed. Eight F. ulcerans strains were  
 characterized using conventional biochem. testing. These strains were  
 further analyzed by PCR employing a single non-specific primer AP3 and by  
 SDS-polyacrylamide gel electrophoresis (SDS-PAGE) of whole cell proteins.  
 PCR using a self-designed pair of primers for the amplification of the  
 spacer (intergenic) region between the 16S and 23S rRNA genes, led to the  
 development of genetic markers for species identification. All F.  
 ulcerans clin. isolates appeared very similar to each other in all the  
 test parameters, but were distinctly different from the type strains of  
 the two phenotypically similar species, F. mortiferum and F. varium. High  
 similarity in PCR- and protein-profiles also raise the possibility that  
 all these F. ulcerans strains came from one clone. Significant  
 differences were noted among the strains of F. mortiferum and F. varium.  
 (c) 1999 Academic Press.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Characteristics of **Fusobacterium** ulcerans, a new and unusual  
 species compared with **Fusobacterium** varium and  
**Fusobacterium** mortiferum

AB **Fusobacterium** ulcerans is a newly described obligately anaerobic  
 Gram-neg., non-spore-forming rod that has been isolated from tropical  
 ulcers. Two morphotypes were described: one resembling  
**Fusobacterium** varium and the other **Fusobacterium**  
 mortiferum. Because of the weak or neg. fermn. reactions of most  
**fusobacteria**, the std. carbohydrate tests used for identification  
 of anaerobe organisms are of little use for identification, and other  
 rapid and simple methods are needed. Eight F. ulcerans strains were  
 characterized using conventional biochem. testing. These strains were  
 further analyzed by PCR employing a single non-specific primer AP3 and by  
 SDS-polyacrylamide gel electrophoresis (SDS-PAGE) of whole cell proteins.  
 PCR using a self-designed pair of primers for the amplification of the  
 spacer (intergenic) region between the 16S and 23S rRNA genes, led to the  
 development of genetic markers for species identification. All F.  
 ulcerans clin. isolates appeared very similar to each other in all the  
 test parameters, but were distinctly different from the type strains of  
 the two phenotypically similar species, F. mortiferum and F. varium. High  
 similarity in PCR- and protein-profiles also raise the possibility that  
 all these F. ulcerans strains came from one clone. Significant  
 differences were noted among the strains of F. mortiferum and F. varium.  
 (c) 1999 Academic Press.

ST **Fusobacterium** new species characterization

IT **Fusobacterium** mortiferum  
**Fusobacterium** ulcerans  
**Fusobacterium** varium  
 PCR (polymerase chain reaction)  
 Taxonomy  
 (**Fusobacterium** ulcerans comparison with **Fusobacterium**  
 varium and **Fusobacterium** mortiferum)

IT Polyacrylamide gel electrophoresis

L5 ANSWER 1 OF 3 USPATFULL

DETD . . . 25586); *F. plauti* (ATCC No.: 29863); *F. prausnitzii* (ATCC No.: human: 27766); *F. russi* (ATCC No.: cat/25583); *F. symbiosum*; *F. varium* (ATCC Nos.: 8501, 27725);

DETD . . . of anti-DNA autoantibodies as compared with the serum level observed in animals fed a control milk diet. Autoantibodies can be **detected** utilizing any well known technique including, for example, ELISA, RIA or **immunoblotting**.

DETD . . . in the spleen to SRBC (FIGS. 10A-10B). IgM-bearing cells appeared on day 4, at which time IgG-bearing cells were not **detected** in mice given control milk, whereas hyperimmune milk increased the number of IgG-bearing cells to a **detectable** level ( $p < 0.001$ ). The numbers of IgM-bearing and IgG-bearing cells on day 7 after immunization with SRBC showed no significant difference. . .

L5 ANSWER 2 OF 3 USPATFULL

DETD . . . uiro (sweet rice jelly), an (bean paste or jam), yokan (sweet bean jelly), jelly, castella (sponge cake), and Japanese candies; **Western**-style cakes such as bunds, biscuits or crackers, cookies, pies (or tarts), pudding, butter cream, cream puffs, sponge cake, doughnuts, chocolate, . . .

DETD **Detector**: A differential refractometer

DETD . . . - -

*Fusobacterium necrophorum*  
GAI#5634

- .+-. - - - - -

*Fusobacterium russii*  
GAI#0317

- .+-. - - - - -

*Fusobacterium varium*  
GAI#5566

- .+-. - - - - -

*Fusobacterium varium*  
R-25 - .+-. - - - - -

*Megamonas hypermegas*  
R-15 - +++ ++ ++ ++ + -

*Mitsuokella multiacida*  
VI-71 -. . .

L5 ANSWER 3 OF 3 USPATFULL

DETD . . . (Aquapore RP-300, 10  $\mu$ m), using acetonitrile and trifluoroacetic acid-water (0.1% trifluoroacetic acid in water) as eluting solvents. The antibiotic was **detected** in the column effluents at 254 nm.

DETD . . . also known to produce typical pathological symptoms in the mouse model (J. W. Whalen et al., presented at the Michigan Branch-**Western** Ontario Branch joint meeting, American Society for Cirobiology, 1982) were inhibited at or below 5  $\mu$ g of the antibiotic per. . .

DETD . . . and treatment of infections caused by this and other related species of *Fusobacterium*, such as *F. nucleatum*, *F. gonidiaformans*, *F. varium* and *F. necrogenes*. All these bacteria are opportunistic pathogens which are invariably present in abscesses, necrotic lesions, upper respiratory infections, . . .

=>

## WEST Search History

DATE: Friday, April 19, 2002

### Set Name Query

side by side

### Hit Count Set Name

result set

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

L4	L1 same (antibod\$ or polyclonal or antiser\$ or immune or immunoglob\$ or immunoassay or elisa or autoimmune or autoantibod\$ or auto-antibod\$ or ige or iga or igg or igm)	1	L4
L3	L1.ti.	0	L3
L2	L1 and (immunoblot\$ or western or immunoassay or immuno-assay or elisa or eliza)	4	L2
L1	(fusobacter\$ or fuso-bacter\$) same varium	40	L1

END OF SEARCH HISTORY

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal645vlf

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Jan 25 BLAST(R) searching in REGISTRY available in STN on the Web  
NEWS 3 Jan 29 FSTA has been reloaded and moves to weekly updates  
NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update  
frequency  
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02  
NEWS 6 Mar 08 Gene Names now available in BIOSIS  
NEWS 7 Mar 22 TOXLIT no longer available  
NEWS 8 Mar 22 TRCTHERMO no longer available  
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAPLUS  
and USPATFULL  
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY  
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.  
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 14 Apr 09 ZDB will be removed from STN  
  
NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 13:23:34 ON 19 APR 2002

=> FIL BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFUL, JAPIO		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'BIOSIS' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'CABA' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 CAB INTERNATIONAL (CABI)

FILE 'CAPLUS' ENTERED AT 13:23:45 ON 19 APR 2002  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved.

FILE 'LIFESCI' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 Cambridge Scientific Abstracts (CSA)

FILE 'MEDLINE' ENTERED AT 13:23:45 ON 19 APR 2002

FILE 'SCISEARCH' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R)

FILE 'USPATFULL' ENTERED AT 13:23:45 ON 19 APR 2002  
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'JAPIO' ENTERED AT 13:23:45 ON 19 APR 2002  
COPYRIGHT (C) 2002 Japanese Patent Office (JPO)

=> s Fusobacterium  
L1 13750 FUSOBACTERIUM

=> s varium  
L2 865 VARIUM

=> s detect? and l2  
8 FILES SEARCHED...  
L3 107 DETECT? AND L2

=> s (antisera or antiserum) and l3  
L4 0 (ANTISERA OR ANTISERUM) AND L3

=> s l3 and (Western or Immunoblot?)  
L5 3 L3 AND (WESTERN OR IMMUNOBLOT?)

=> d bib ab l5 1-3

L5 ANSWER 1 OF 3 USPATFULL  
AN 2000:53762 USPATFULL  
TI Use of hyperimmune milk to prevent suppression of T-lymphocyte  
production  
IN Beck, Lee R., Lebanon, OH, United States  
Ishida, Atsunori, Honjo, Japan  
Yoshikai, Yasunobu, Higashiku, Japan  
Murosaki, Shinji, Nara, Japan  
Kubo, Chiharu, Hakata-ku, Japan  
Hidaka, Yoshio, Tokyo, Japan  
Nomoto, Kikuo, Higashi-ku, Japan  
PA Stolle Milk Biologics, Inc., Cincinnati, OH, United States (U.S.  
corporation)  
PI US 6056978 20000502  
AI US 1995-419952 19950410 (8)  
RLI Continuation of Ser. No. US 1993-53253, filed on 28 Apr 1993, now  
abandoned which is a continuation of Ser. No. US 1992-899719, filed on  
16 Jun 1992, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Lubet, Martha



LREP Sterne, Kessler, Goldstein & Fox P.L.L.C.  
CLMN Number of Claims: 10  
ECL Exemplary Claim: 1  
DRWN 10 Drawing Figure(s); 9 Drawing Page(s)  
LN.CNT 1473

AB The invention relates to the use of hyperimmune milk derived from milk producing animals hyperimmunized with bacterial antigens including intestinal bacteria. The present hyperimmune milk effectively prevents the decline of immunological functions observed in aging or immunocompromised animals and prevents the translocation of indigenous enteric bacteria from the GI tract of immunocompromised or aged animals, thereby preventing indigenous infection. More specifically, the present hyperimmune milk is administered to an animal in an amount sufficient to effectively prevent translocation of indigenous enteric bacteria in, delay the onset of, lower the rate of, or restore the declining immune functions of, aging or otherwise immunocompromised animals.

L5 ANSWER 2 OF 3 USPTFULL

AN 93:48501 USPTFULL

TI Method of improving intestinal floras

IN Okada, Gentaro, Shizuoka, Japan

Nakakuki, Teruo, Mishima, Japan

Kainuma, Seishiro, Shimizu, Japan

Unno, Takehiro, Fuji, Japan

PA Nihon Shokuhin Kako Co., Ltd., Tokyo, Japan (non-U.S. corporation)

PI US 5219842 19930615

AI US 1990-565441 19900809 (7)

PRAI JP 1989-221927 19890829

JP 1990-61935 19900313

DT Utility

FS Granted

EXNAM Primary Examiner: Waddell, Frederick E.; Assistant Examiner: Henley, III, Raymond J.

LREP Frishauf, Holtz, Goodman & Woodward

CLMN Number of Claims: 6

ECL Exemplary Claim: 1

DRWN 3 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 837

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A .beta.-glucopoligosaccharide-containing composition comprising at least one material selected from food, drink and medicine, and at least one selected from a glucopoligosaccharide comprising at least one .beta.-1,6 bond and a reduced product thereof. A method of improving intestinal floras, comprising administering to a human or animal for ingestion a physiologically effective amount of at least one selected from a glucopoligosaccharide comprising at least one .beta.-1,6 bond and a reduced product thereof. The ingestion of the .beta.-glucopoligosaccharide and/or the reduced product thereof can bring about promotion of the selective growth of useful bacteria such as Bifidobacteria and lactic acid bacteria, inhibition of the growth of harmful bacteria or putrefactive bacteria, and hence improvement in the intestinal floras.

L5 ANSWER 3 OF 3 USPTFULL

AN 88:47136 USPTFULL

TI Antibiotic: Treponemycin

IN Gurusiddaiah, Sarangamat, Pullman, WA, United States

Singh, Shrikrishna, Pittsburgh, PA, United States

PA Washington State University Research Foundation, Pullman, WA, United States (U.S. corporation)

PI US 4759928 19880726

AI US 1986-824733 19860131 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Goldberg, Jerome D.

LREP Wells, St. John & Roberts  
 CLMN Number of Claims: 14  
 ECL Exemplary Claim: 1  
 DRWN 9 Drawing Figure(s); 7 Drawing Page(s)  
 LN.CNT 783

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Two strains of Streptomyces were identified as Streptomyces albovinaceus. Both isolates produced an antibiotic when grown in liquid culture medium containing homogenized oats. The antibiotic (Treponemycin) was isolated from the culture broth by solvent extraction and purified. The antibiotic showed inhibitory activity against several species of bacteria, especially Treponema hyodysenteriae, the causative agent of swine dysentery. In view of the oral 50% lethal dose of 400 mg/kg and its low MIC against four strains of T. hyodysenteriae, the antibiotic has value as a swine dysentery therapeutic. The antibiotic lends itself readily to production of a tetrahydro derivative, a primary amine, a dimethyl ester and a hydrochloride esters and salts of these compounds, and hydrates of these compounds and of the esters or salts can also be produced for pharmaceutical usages.

=> d kwic 1-3 15

L5 ANSWER 1 OF 3 USPATFULL

DETD . . . 25586); F. plauti (ATCC No.: 29863); F. prausnitzii (ATCC No.: human: 27766); F. russi (ATCC No.: cat/25583); F. symbiosum; F. **varium** (ATCC Nos.: 8501, 27725);

DETD . . . of anti-DNA autoantibodies as compared with the serum level observed in animals fed a control milk diet. Autoantibodies can be **detected** utilizing any well known technique including, for example, ELISA, RIA or **immunoblotting**.

DETD . . . in the spleen to SRBC (FIGS. 10A-10B). IgM-bearing cells appeared on day 4, at which time IgG-bearing cells were not **detected** in mice given control milk, whereas hyperimmune milk increased the number of IgG-bearing cells to a **detectable** level (p<0.001). The numbers of IgM-bearing and IgG-bearing cells on day 7 after immunization with SRBC showed no significant difference. . .

L5 ANSWER 2 OF 3 USPATFULL

DETD . . . uiro (sweet rice jelly), an (bean paste or jam), yokan (sweet bean jelly), jelly, castella (sponge cake), and Japanese candies; **Western**-style cakes such as bunds, biscuits or crackers, cookies, pies (or tarts), pudding, butter cream, cream puffs, sponge cake, doughnuts, chocolate, . . .

DETD **Detector**: A differential refractometer

DETD . . . - -

Fusobacterium necrophrum  
 GAI#5634

- .+-. - - - - -

Fusobacterium russii  
 GAI#0317

- .+-. - - - - -

Fusobacterium **varium**  
 GAI#5566

- .+-. - - - - -

Fusobacterium **varium**  
 R-25

- .+-. - - - - -

Megamonas hypermegas  
 R-15

- +++ ++ ++ ++ + -

Mitsuokella multiacida  
 VI-71

- . . .

L5 ANSWER 3 OF 3 USPATFULL

DETD . . . (Aquapore RP-300, 10 .mu.m), using acetonitrile and trifluoroacetic acid-water (0.1% trifluoroacetic acid in water) as

eluting solvents. The antibiotic was **detected** in the column effluents at 254 nm.

DETD . . . also known to produce typical pathological symptoms in the mouse model (J. W. Whalen et al., presented at the Michigan Branch-**Western** Ontario Branch joint meeting, American Society for Cirobiology, 1982) were inhibited at or below 5 .mu.g of the antibiotic per. . .

DETD . . . and treatment of infections caused by this and other related species of Fusobacterium, such as F. nucleatum, F. gonidiaformans, F. **varium** and F. necrogenes. All these bacteria are opportunistic pathogens which are invariably present in abscesses, necrotic lesions, upper respiratory infections,. . .

=> d his

(FILE 'HOME' ENTERED AT 13:23:34 ON 19 APR 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 13:23:45 ON 19 APR 2002

L1 13750 S FUSOBACTERIUM  
L2 865 S VARIUM  
L3 107 S DETECT? AND L2  
L4 0 S (ANTISERA OR ANTISERUM) AND L3  
L5 3 S L3 AND (WESTERN OR IMMUNOBLOT?)

=> s l1 or l2

L6 14100 L1 OR L2

=> s l6 and (antibod? or polyclonal? or immune? or immunoglob? or immunoassay?)

COMMAND INTERRUPTED

<-----User Break----->

u

SEARCH ENDED BY USER

If this message appears repeatedly, please notify the Help Desk.

Enter "HELP STN" for information on contacting the nearest STN Help Desk by telephone or via SEND in the STNMAIL file.

=> d his

(FILE 'HOME' ENTERED AT 13:23:34 ON 19 APR 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 13:23:45 ON 19 APR 2002

L1 13750 S FUSOBACTERIUM  
L2 865 S VARIUM  
L3 107 S DETECT? AND L2  
L4 0 S (ANTISERA OR ANTISERUM) AND L3  
L5 3 S L3 AND (WESTERN OR IMMUNOBLOT?)  
L6 14100 S L1 OR L2

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST 48.40 48.61

STN INTERNATIONAL LOGOFF AT 13:39:09 ON 19 APR 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1645vlf

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Jan 25 BLAST(R) searching in REGISTRY available in STN on the Web  
NEWS 3 Jan 29 FSTA has been reloaded and moves to weekly updates  
NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update  
frequency  
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02  
NEWS 6 Mar 08 Gene Names now available in BIOSIS  
NEWS 7 Mar 22 TOXLIT no longer available  
NEWS 8 Mar 22 TRCTHERMO no longer available  
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAplus  
and USPATFULL  
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY  
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.  
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 14 Apr 09 ZDB will be removed from STN  
  
NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 13:48:28 ON 19 APR 2002

=> file registry  
COST IN U.S. DOLLARS

SINCE FILE TOTAL  
ENTRY SESSION

FULL ESTIMATED COST

0.21 0.21

FILE 'REGISTRY' ENTERED AT 13:48:36 ON 19 APR 2002  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 18 APR 2002 HIGHEST RN 406160-25-6  
DICTIONARY FILE UPDATES: 18 APR 2002 HIGHEST RN 406160-25-6

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

```
=> s fusobacterium varium?
      64 FUSOBACTERIUM
      2 VARIUM?
L1      0 FUSOBACTERIUM VARIUM?
      (FUSOBACTERIUM(W)VARIUM?)
```

```
=> s fusobacterium (a) varium?
      64 FUSOBACTERIUM
      2 VARIUM?
L2      0 FUSOBACTERIUM (A) VARIUM?
```

```
=> s fusobacterium (w) varium
      64 FUSOBACTERIUM
      2 VARIUM
L3      0 FUSOBACTERIUM (W) VARIUM
```

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	24.38	24.59

FILE 'CAPLUS' ENTERED AT 13:49:20 ON 19 APR 2002  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 19 Apr 2002 VOL 136 ISS 17  
FILE LAST UPDATED: 18 Apr 2002 (20020418/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> e fusobacterium varium

```

E1          1      FUSOBACTERIUM/BI
E2         1300     FUSOBACTERIUM/BI
E3          0 --> FUSOBACTERIUM VARIUM/BI
E4          1      FUSOBACTERIUM/BI
E5          1      FUSOBACTERIUM/BI
E6          2      FUSOBACTERIUM/BI
E7          1      FUSOBACTERIUM/BI
E8          2      FUSOBACTERIUM/BI
E9         15      FUSOBACTERIUM/BI
E10         1      FUSOBACTERIUM/BI
E11         1      FUSOBACTERIUM/BI
E12         8      FUSOBACTERIUM/BI

```

=> s e2 or e4 or e5 or e6 or e7 or e8

```

1300 FUSOBACTERIUM/BI
128 FUSOBACTERIA/BI
1363 FUSOBACTERIUM/BI
      ((FUSOBACTERIUM OR FUSOBACTERIA)/BI)
1 FUSOBACTERIUM/BI
1 FUSOBACTERIUM/BI
2 FUSOBACTERIUM/BI
1 FUSOBACTERIUM/BI
2 FUSOBACTERIUM/BI
L4    1363 FUSOBACTERIUM/BI OR FUSOBACTERIUM/BI OR FUSOBACTERIUM/BI OR
      FUSOBACTERIUM/BI OR FUSOBACTERIUM/BI OR FUSOBACTERIUM/BI

```

=> s l4 and varium

```

142 VARIUM
L5    99 L4 AND VARIUM

```

=> s l5 and (immunoblot? or western? or autoantibod? or antibod? or antiser?)

```

33669 IMMUNOBLOT?
86818 WESTERN?
12266 AUTOANTIBOD?
345093 ANTIBOD?
64678 ANTISER?
L6    0 L5 AND (IMMUNOBLOT? OR WESTERN? OR AUTOANTIBOD? OR ANTIBOD? OR
      ANTISER?)

```

=> s l5 and autoimmune?

```

24815 AUTOIMMUNE?
L7    0 L5 AND AUTOIMMUNE?

```

=> s l5 and immune

```

133142 IMMUNE
6 IMMUNES
133144 IMMUNE
      (IMMUNE OR IMMUNES)
L8    1 L5 AND IMMUNE

```

=> d l8 bib ab kwic 1

```

L8    ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
AN    1988:68553  CAPLUS
DN    108:68553
TI    Comparative immunological studies on Corynebacterium parvum polysaccharide
      and Fusobacterium varium lipopolysaccharide
AU    Marx, A.; Salageanu, Aurora; Olinescu, A.; Gancevici, G.
CS    Cantacuzino Inst., Bucharest, Rom.

```

SO Arch. Roum. Pathol. Exp. Microbiol. (1987), 46(1), 57-65  
 CODEN: APEMAR; ISSN: 0004-0037

DT Journal

LA English

AB Comparative immunol. studies were carried out on *C. parvum*'s polysaccharide (CPP) and the lipopolysaccharide (LPS) of *F. varium*, in order to differentiate structurally the 2 antigens of anaerobic bacteria origin. CPP was not toxic in galactosamine-sensitized mice, and therefore it lacks a lipid A moiety. LPS and CPP are mitogenic on mice spleen cells and activate complement, both activities being however distinctly lower in the CPP. The presence of an addnl. structure in the CPP mol. is suggested which, in contrast to the antigenic determinant, is not affected by oxidn. with periodate. In its reaction with Concanavalin A, in contrast to LPS, CPP shown a pptn. curve presenting a sharp peak, which may be inhibited by mannose, glucose, and glucosamine. In ConA soln. as well as in lysozyme soln., *C. parvum* (CPP+) bacterial suspension does agglutinate, whereas *F. varium* (LPS+) does not. Thes same *C. parvum* strain was more intensely phagocytized than the *F. varium* strain.

TI Comparative immunological studies on *Corynebacterium parvum* polysaccharide and *Fusobacterium varium* lipopolysaccharide

AB Comparative immunol. studies were carried out on *C. parvum*'s polysaccharide (CPP) and the lipopolysaccharide (LPS) of *F. varium*, in order to differentiate structurally the 2 antigens of anaerobic bacteria origin. CPP was not toxic in galactosamine-sensitized mice, and therefore it lacks a lipid A moiety. LPS and CPP are mitogenic on mice spleen cells and activate complement, both activities being however distinctly lower in the CPP. The presence of an addnl. structure in the CPP mol. is suggested which, in contrast to the antigenic determinant, is not affected by oxidn. with periodate. In its reaction with Concanavalin A, in contrast to LPS, CPP shown a pptn. curve presenting a sharp peak, which may be inhibited by mannose, glucose, and glucosamine. In ConA soln. as well as in lysozyme soln., *C. parvum* (CPP+) bacterial suspension does agglutinate, whereas *F. varium* (LPS+) does not. Thes same *C. parvum* strain was more intensely phagocytized than the *F. varium* strain.

ST *Corynebacterium* polysaccharide *Fusobacterium* lipopolysaccharide immunol

IT Mitogens  
 (lipopolysaccharide of *Fusobacterium varium* and polysaccharide of *Corynebacterium parvum* as)

IT *Fusobacterium varium*  
 (lipopolysaccharide of, immune reactions of)

IT Lipopolysaccharides  
 RL: RCT (Reactant)  
 (of *Fusobacterium varium*, toxicity and immune reactions of)

IT Toxicity  
 (of *Corynebacterium parvum* polysaccharide vs. *Fusobacterium varium* lipopolysaccharide, lipid A in relation to)

IT Polysaccharides, biological studies  
 RL: RCT (Reactant)  
 (of *Corynebacterium parvum*, toxicity and immune reactions of)

IT *Corynebacterium parvum*  
 (polysaccharide of, immune reactions of)

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	26.26	50.85
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.62	-0.62

SESSION WILL BE HELD FOR 60 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 13:51:09 ON 19 APR 2002



L5 ANSWER 1 OF 3 USPATFULL  
AN 2000:53762 USPATFULL  
TI Use of hyperimmune milk to prevent suppression of T-lymphocyte  
production  
IN Beck, Lee R., Lebanon, OH, United States  
Ishida, Atsunori, Honjo, Japan  
Yoshikai, Yasunobu, Higashiku, Japan  
Murosaki, Shinji, Nara, Japan  
Kubo, Chiharu, Hakata-ku, Japan  
Hidaka, Yoshio, Tokyo, Japan  
Nomoto, Kikuo, Higashi-ku, Japan  
PA Stolle Milk Biologics, Inc., Cincinnati, OH, United States (U.S.  
corporation)  
PI US 6056978 20000502  
AI US 1995-419952 19950410 (8)  
RLI Continuation of Ser. No. US 1993-53253, filed on 28 Apr 1993, now  
abandoned which is a continuation of Ser. No. US 1992-899719, filed on  
16 Jun 1992, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Lubet, Martha  
LREP Sterne, Kessler, Goldstein & Fox P.L.L.C.  
CLMN Number of Claims: 10  
ECL Exemplary Claim: 1  
DRWN 10 Drawing Figure(s); 9 Drawing Page(s)  
LN.CNT 1473  
AB The invention relates to the use of hyperimmune milk derived from milk  
producing animals hyperimmunized with bacterial antigens including  
intestinal bacteria. The present hyperimmune milk effectively prevents  
the decline of immunological functions observed in aging or  
immunocompromised animals and prevents the translocation of indigenous  
enteric bacteria from the GI tract of immunocompromised or aged animals,  
thereby preventing indigenous infection. More specifically, the present  
hyperimmune milk is administered to an animal in an amount sufficient to  
effectively prevent translocation of indigenous enteric bacteria in,  
delay the onset of, lower the rate of, or restore the declining immune  
functions of, aging or otherwise immunocompromised animals.

(FILE 'HOME' ENTERED AT 13:23:34 ON 19 APR 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,  
USPATFULL, JAPIO' ENTERED AT 13:23:45 ON 19 APR 2002

L1 13750 S FUSOBACTERIUM  
L2 865 S VARIUM  
L3 107 S DETECT? AND L2  
L4 0 S (ANTISERA OR ANTISERUM) AND L3  
L5 3 S L3 AND (WESTERN OR IMMUNOBLOT?)  
L6 14100 S L1 OR L2

=>